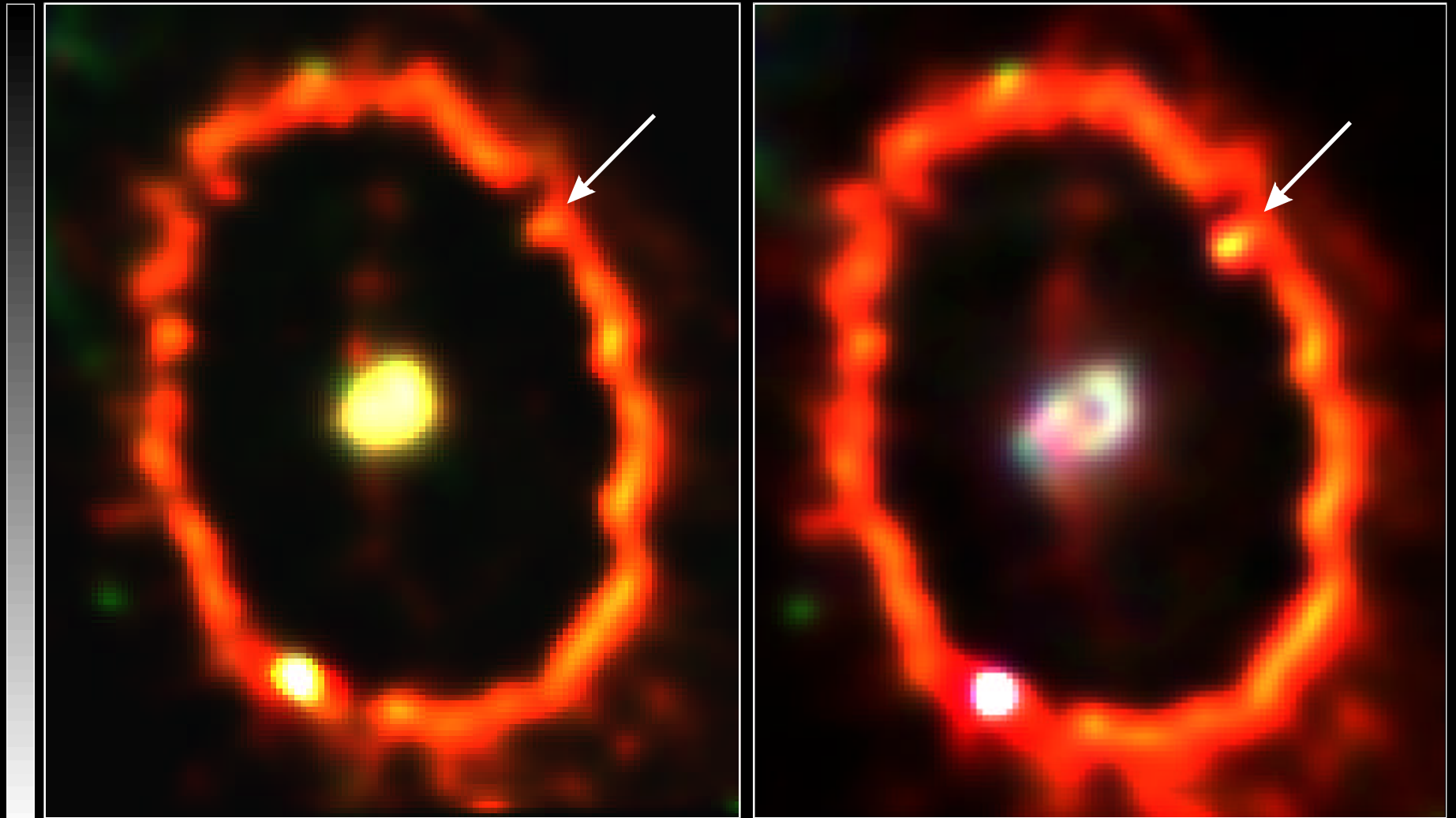
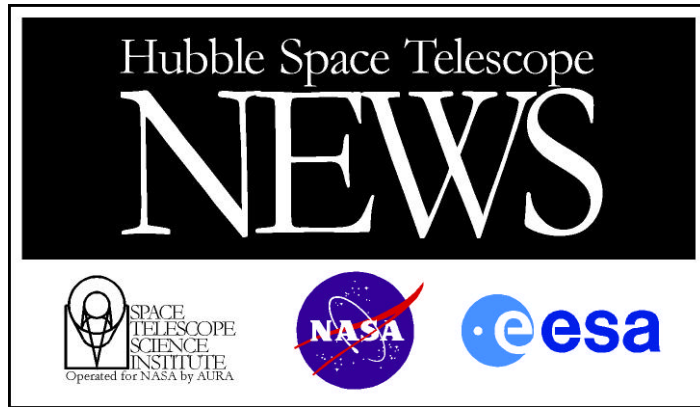


1994

1997



Supernova 1987A Ring
Hubble Space Telescope WFPC2



EMBARGOED UNTIL: 1:00 P.M. (EST) February 10, 1998

PHOTO NO.: STScI-PRC98-08b

BRIGHT KNOT APPEARS IN SUPERNOVA1987A RING

[LEFT] - This NASA Hubble Space Telescope Wide Field and Planetary Camera 2 image shows the glowing gas ring around supernova 1987A, as it appeared in 1994. The gas, excited by light from the explosion, has been fading for a decade.

[RIGHT] - Recent Hubble telescope observations show a brightening knot on the upper right side of the ring. This is the site of a powerful collision between an outward moving blast wave and the innermost parts of the circumstellar ring. The collision heats the gas and has caused it to brighten in recent months. This is likely to be the first sign of a dramatic and violent collision that will take place over the next few years, rejuvenating SN1987A as a powerful source of X-ray and radio emissions.

The white sickle-shaped material in the center is the visible part of the shredded star, rushing outward at 3,000 kilometers per second, which is heated by radioactive elements created in the supernova explosion.

The bright dot in the lower left is a star, which is the same direction as SN1987A, but is not physically part of the system.

Both images were made from separate images taken in blue light, visual light and the narrow emission from glowing hydrogen. Computer image processing techniques were used to enhance details in the ring.

Credit: Peter Garnavich (Harvard-Smithsonian Center for Astrophysics), and NASA

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